

**REMARKS**

Claims 1-17 are pending in the instant application. Claims 1-3 and 6-14 stand rejected under 35 USC 102(b) as being anticipated by United States Patent No. 3,898,044 to Strecker. Claims 1-3 and 6-14 stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of United States Patent No. 5,442,186 to Walker et al. and United States Patent No. 4,871,087 to Johnson. Claims 4 and 5 stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of Lu ("Characterisation of Closed-cell Cellular Aluminium Alloys" J. Mat. Sci. 2001 36:2773-86). Claims 4 and 5 alternatively stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of Walker, Johnson and Lu ("Characterisation of Closed-cell Cellular Aluminium Alloys" J. Mat. Sci. 2001 36:2773-86). Claims 14-17 stand rejected under 35 USC 103(a) as being unpatentable over Strecker (or alternatively over Strecker in view of Walker and Johnson. The application has not been amended. Reconsideration is respectfully requested.

Claims 1-3 and 6-14 stand rejected under 35 USC 102(b) as being anticipated by United States Patent No. 3,898,044 to Strecker. This rejection is respectfully traversed.

The Office asserts that the piercable stoppers (col 3 lines 3-5) of Strecker act as both "1st and 2nd buffers" as well as "frangible seals". Claim 1 makes it clear that the 1st and 2nd buffers are separate entities from the frangible seals. In particular, it is evident from present claim 1 that the frangible seals are intended to be part of the isotope container ("isotope container is an ion exchange column including a frangible seal at each of its opposing ends").

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whereas the 1st and 2nd compressible buffers are separate to the isotope container ("each buffer providing an outer surface for contact with opposed ends of the isotope container").

Making reference to figure 7 of Strecker, various unlabelled components are present within the head portion of the nuclide generator (equivalent to the isotope container of present claim 1). Even in the absence of a description of the various components, there is no component in figure 7 of Strecker that has an outer surface in contact with the end of the nuclide generator. The end of the nuclide generator directly abuts the chamber closure (unlabelled cross-hatching opposite direction to component 14 cross-hatching in figure 7 of Strecker).

Likewise with the supposed "spacer" of Strecker. The Office maintains that the darker cross-hatching of figure 7 of Strecker represents a spacer equivalent to the spacer of present claim 1. Apart from there being nothing in Strecker that describes what this darker cross-hatching is, it cannot be said that it functions as a spacer "for determining the positioning of the isotope container within the shielded chamber". First, it is clear that this darker cross-hatching is an integral part of the nuclide generator itself (equivalent to the isotope container of present claim 1); e.g. in figure 2 of Strecker, the nuclide generator (13) clearly has a wider portion at each end, this wider portion being equivalent to the wider portion (which comprises the darker cross-hatching) of figure 7 of Strecker. As the darker cross hatching is an integral part of the nuclide generator it cannot act to determine the position of the nuclide generator in the chamber.

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Moreover, as this component does not even come into contact between two other components, Applicant respectfully submits that it cannot possibly function as a spacer. Additionally still, this unidentified component includes a large opening through which the needle passes. This large opening also prevents the component from acting as a spacer for the needle since it therefore does not come into contact between the needle and anything else.

Given the above-identified failings of Strecker, Applicants respectfully submit that Strecker fails to disclose each and every element of claim 1. As a result, claim 1 is therefore not anticipated by Strecker. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-3 and 6-14 stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of United States Patent No. 5,442,186 to Walker et al. and United States Patent No. 4,871,087 to Johnson. This rejection is respectfully traversed.

The Office constructs its inventive step objection against present claim 1 on the assumption that Strecker does not disclose a spacer. As presented above, Strecker also differs from present claim 1 in that Strecker does not disclose 1st and 2nd compressible buffers.

The Office argues that the feature of spacers is disclosed by Walker and Johnson and that it would have been obvious to combine these teachings with those of Strecker to arrive at the invention of claim 1.

Walker teaches a storage jacket for a radioactive source, which facilitates reconditioning and re-use of the radioactive source. A radioactive source is used as a static/unchanging component in various devices, where it emits a defined amount and type of radioactivity for the purposes of obtaining. Walker discloses employing a ceramic or refractory spacer between the radioactive source container and the cover of the storage jacket. The ceramic spacer includes a central open passageway which includes inwardly-facing threads to enable the removal of the spacer. While the present invention is used for the active process of production of radionuclides, the device of Walker, on the other hand, is directed to the storage of radioactive material.

Applicants respectfully submit that the requirements for radiological protection differ greatly in a static device vs. a "dynamic" device and that one of skill in the art would not refer to Walker.

Johnson teaches a container for storing and dispensing (non-radioactive) ultra high purity chemicals. The container comprises inner and outer containers, wherein the inner container is separated from the outer container by a pair of elongate upper spacers (80 and 88) and a bottom spacer (20) formed by an x-shaped lower component supporting four upstanding beveled legs. The Johnson upper spacers are simply a pair of bars which span to either side of the top of the inner container. The cap of the inner container is not shown to be pierceable, it is formed with certain plumbing components to allow dispensing of the inner container's contents. Because of this fluid conduit and valving, the Johnson upper spacers

would not engage a needle penetrating through the cap of this inner container, while the Johnson lower spacer would not fit at a location of the upper spacers.

Applicants again respectfully submit that the skilled person, seeking to improve the radiological safety of a radioisotope generator, would not consider combining the teachings of Johnson (as it does not relate to radioactivity and provides built-in valves and conduits on the inner container) with known radioisotope generators. Moreover, the Office's contention that a citation to non-analogous art is evidence of widespread use vitiates the concept of non-analogous art.

Each of the spacers cited by the Office are formed from a single unitary component, while the buffers of the instant invention are claimed to include the first portion about the needle and a second portion comprising the spacer. None of the spacers in the cited references provide such a construction.

Furthermore, it is clear that the combined teachings of Johnson and Walker with known radioisotope generators (e.g. Strecker) would not lead to the instant invention. The Office relies on Walker and Johnson for their teachings on spacers. However, the spacer of Walker is both formed from an incompressible ceramic material and includes a central opening which precludes it from engaging a needle, as required by the present invention. Additionally, the upper spacers of Johnson are simply spaced apart and parallel elongate bars which would fail to engage a needle as present claimed. While the lower spacer of Johnson, with its upstanding legs which extend around the inner container, would frustrate its use

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during insertion of the needle into the seal of the isotope container of the present invention as these flexible legs would have to extend along the sides of the column.

Furthermore, providing modifications to the spacers of either Walker or Johnson in accordance with the present invention would frustrate the functioning they are required to bring to their own respective devices. Shrinking the central passageway of Walker down to needle-size, would prevent it from being threaded so that it could allow withdrawal of the spacer. Similarly, for the spacers of the Johnson to be modified in accordance with the present invention would require a complete modification of the inner container of Johnson so as to prevent it's functioning as Johnson intended (ie, the Johnson inner container could not provide the dispense plumbing). Johnson requires that it's upper spacers extend to either side of the dispense plumbing. Were the upper spacers to be modified according to the present invention, the inner container would have to be modified such that it did not include its dispense conduit and valves.

Applicants respectfully submit that since the Office's proposed modifications to Walker and Johnson would cause the very purpose of those references to be frustrated, the proposed modifications are improper. As a result, neither Walker nor Johnson, taken together or alone, correct the deficiencies of Strecker. Therefore, the instant invention is patentably distinct thereover. Reconsideration and withdrawal of the rejection are respectfully requested.

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Claims 4 and 5 stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of Lu ("Characterisation of Closed-cell Cellular Aluminium Alloys" J. Mat. Sci. 2001 36:2773-86). Claims 4 and 5 alternatively stand rejected under 35 USC 103(a) as being unpatentable over Strecker in view of Walker, Johnson and Lu ("Characterisation of Closed-cell Cellular Aluminium Alloys" J. Mat. Sci. 2001 36:2773-86). Applicants respectfully submit that these rejections stand traversed as each of the claims depend from allowable base claim 1 and, as such, are likewise allowable. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 14-17 stand rejected under 35 USC 103(a) as being unpatentable over Strecker (or alternatively over Strecker in view of Walker and Johnson. This rejection is respectfully traversed.

The method claims (claim 14 and dependents) are objected to as being obvious over Strecker as the order of process steps are deemed obvious. However, as demonstrated hereinabove, Strecker, Walker and Johnson fail to disclose, teach, or suggest the radioisotope generator of the instant invention, it reasons that Strecker also fails to disclose, teach or suggest a method for making a radioisotope generator of the instant invention. Given these shortcomings in the cited references, Applicants respectfully submit that the instant invention is patentably distinct thereover. Reconsideration and withdrawal of the rejection are respectfully requested.

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In view of the remarks hereinabove, Applicants respectfully submit that the instant application, including claims 1-6 and 8-17, is in condition for allowance. Favorable action thereon is respectfully requested.

Any questions with respect to the foregoing may be directed to Applicants' undersigned counsel at the telephone number below.

Respectfully submitted,

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